

**December 2014**

**ISB** *Now*



December  
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# Table of Contents

<b>President's Blog</b> .....	1
<b>Student's Corner</b> .....	2
<b>Technical Groups Update</b> .....	4
<b>Biomechanics in Developing Countries</b> .....	5
<b>ISB Congress Update</b> .....	6
<b>ISB New Members, December 2014</b> .....	6
<b>News from Affiliated Societies</b> .....	6
<b>Call for ISB Executive Nominations</b> .....	8

# President's Blog

By Ed Chadwick | December 2014

The ISB maintains a web-site some areas of which are accessible by anyone, while other parts are accessible by members only. Our most recent congress proceedings are available via that web-site. Originally we made the proceedings accessible by members only; it was a benefit of membership. Recently we changed our policy on this, so now the proceedings are accessible by everyone. Our rationale was that it is in our members' best interests to have their research available to as many people as possible, and by having this portion of the web-site open access various indexing services can add the work presented at our congresses to their databases; raising the profile of the research and the society.

Submission deadlines seem to come around very quickly. I always imagine that in the 24 hours before the deadline for submission of abstracts to an ISB Congress is the most productive period for biomechanists around the world. Of course the pressure of a deadline can be very motivating but can also lead to mistakes. A recent publishing error could have been due to rushing to meet a deadline. In the main body of a paper titled "*Variation in Melanism and Female Preference in Proximate but Ecologically Distinct Environments*" which was recently published in the journal *Ethology* the following statement was made,

*"Although the association preferences documented in our study theoretically could be a consequence of either mating or shoaling preferences in the different female groups investigated (should we cite the crappy Gabor paper here?), shoaling preferences are unlikely drivers of the documented patterns..."*

Clearly there was some breakdown here in the checking of the manuscript prior to submission, and presumably at one or more of the following stages of the publication process: peer review, editorial review, copyediting, and or the checking of proofs. This version of the paper is no longer available, but the current version is accompanied by the note "This article has been updated since first published on 12 July 2014 and subsequently replaced due to inclusion of an author's note not intended for publication". As biomechanists it is hard to assess Caitlin Gabor's work in sociobiology but the paper referred to parenthetically has been cited over 60 times.

Many evaluate journals based on their impact factor. The impact factor is calculated as the total number of citations received by papers published in a journal in a given year divided by the total number of citable items published in the journal in the preceding two years. An impact factor of four means that papers published in that journal are on average cited four times. The impact factor for the *Journal of Biomechanics* is around 2.5, while *Nature* and *Science* have impact factors over 30. There are other more subtle measures of journals including the Eigenfactor, although one I like is the Retraction Index. This is a measure of the frequency with which papers are retracted from a journal after publication. Interestingly, this index has a strong positive correlation with the Impact Factor!

The value of a paper is not accurately reflected by the impact factor of the journal in which the paper is published. The citation rate varies between research areas, and the number of papers cited in papers also varies. For example, in cell biology a paper published in a leading journal might receive 10 to 30 citations within two years of publication, while in a leading math journal a paper would be doing very well if it received 2 citations. To address the growing reliance on impact factor as a metric for the quality of a paper, a group of editors and publishers of journals met at the 2012 Annual Meeting of the American Society for cell Biology. They discussed how the quality of research is assessed, and how research is cited. The result of this meeting was the San Francisco Declaration on Research Assessment, which was published in 2013 and is available on the web, <http://am.ascb.org/dora/>. There were 18 recommendations; here I will highlight just five. The first is the reports general recommendation,

- Do not use journal-based metrics, such as journal impact factors, as a surrogate measure of

the quality of individual research articles, to assess an individual scientist's contributions, or in hiring, promotion, or funding decisions.

The other four relate to individuals,

- When involved in committees making decisions about funding, hiring, tenure, or promotion, make assessments based on scientific content rather than publication metrics.
- Wherever appropriate, cite primary literature in which observations are first reported rather than reviews in order to give credit where credit is due.
- Use a range of article metrics and indicators on personal/supporting statements, as evidence of the impact of individual published articles and other research outputs.
- Challenge research assessment practices that rely inappropriately on journal impact factors and promote and teach best practice that focuses on the value and influence of specific research outputs.

These recommendations will hopefully be helpful as you sit on committees assessing research, or as you select a journal for submission of your work, or as you cite papers in your manuscripts.

*Regards,*

*John Challis*

*Penn State University*

[jhc10@psu.edu](mailto:jhc10@psu.edu)

## Student's Corner

By Ed Chadwick | December 2014

Hi Trainees,

Hopefully you all submitted your abstracts to the 2015 International Society of Biomechanics Congress. Don't forget to register for the congress at <http://www.isbglasgow.com/>. Our team has developed some new and exciting programming ideas for the congress that we hope you will enjoy!

- **Mock Academic Interview** - *open to all delegates:*

Interested in pursuing a career in academic? Curious about the Academic Interview Process? Come watch a mock academic interview with a keen Post Doc (played by Prof. Phil Rowe). The audience will have the chance to quiz the candidate, and at the end of the session, decide if he gets the job!

- **Mentoring Session** (must be attended by ISB student members who wish to be included in the Student Excursion) - *open to EDC student and student ISB members:*

Over lunch, get a chance to chat with an expert in your field. Please indicate your expertise and a question you have upon registration.

- **Inaugural Women in Biomechanics Lunch** - open to all ISB members:

A Networking and conversation forum to celebrate contributions from the women of ISB over lunch.

- **Outreach Lunch** - open to all delegates:

Are you interested in engaging the public with your work? Unsure how to write a lay abstract? Struggling with engaging industry? Want to maximize the impact of your findings? This lunch and learn provide tips to increase outreach and translation of your work.

- **Cool Under Pressure** - open to all delegates:

*'Stress is the adverse reaction that people have to excessive pressure or other types of demand placed upon them'*. Do you feel stressed? Come to this lunch and we will provide you with few tips and tools on how to manage stress, keep calm and stay positive. You will also get the chance to experience a few minutes of relaxation techniques to boost your attention for the next conference session!

Special thanks to Enrica Papi (PDF, Imperial College, London), Andrea Hemmerich (Economically Developing Countries Officer), Prof Phil Rowe and the congress organizers for their fabulous ideas listed above!

Do you have an idea for a session or activity at the 2015 ISB Congress in Glasgow? Email me at [isb.studentrepresentative@gmail.com](mailto:isb.studentrepresentative@gmail.com).

### **Call for nominations - ISB Trainee Spotlight**

We are accepting nominations for the **ISB Trainee Spotlight**. We will post small stories about ISB Trainees and some of the fabulous things they are doing. You may nominate a colleague or yourself, as long as they are a current ISB Trainee. Supervisors can nominate trainees, too! We hope this will be a fun way to showcase our fabulous trainee group on Facebook, LinkedIn, and Twitter.

To submit a nomination for consideration, please submit the following to [isb.studentrepresentative@gmail.com](mailto:isb.studentrepresentative@gmail.com):

- 1) a short paragraph about the individual
  1. the university they attend,
  2. their research focus
  3. why you think they should be a spotlighted trainee
- 2) a picture
- 3) a statement acknowledging the nominated individual is aware of the nomination

4) a statement confirming the individual is comfortable with their photo being posted on the ISB Facebook and LinkedIn Pages

As always, feel free to contact me with any questions or suggestions. Don't forget to follow @ISBiomechanics (twitter), International Society of Biomechanics (Facebook), International Society of Biomechanics Student Group, and the International Society of Biomechanics members LinkedIn page.

All the best,

Kelsey Collins

isb.studentrepresentative@gmail.com

## Technical Groups Update

By Ed Chadwick | December 2014

### 10th meeting of the International Shoulder Group

The 10th meeting of the [International Shoulder Group](https://uwaterloo.ca/isg2014/) was held at the University of Waterloo from July 13-15, 2014. The ISG has an extensive history of meeting through special sessions at ISB and other conferences as well as independent meetings with the goal of sharing new knowledge of the upper limb and its many applications across clinical, biomedical engineering, occupational, sport and other areas. The 10th meeting exemplified this trend, as a wide variety of work was presented from across the world that spanned a diverse array of research themes. The programme for the meeting and abstracts are still available online at: <https://uwaterloo.ca/isg2014/>

Two distinguished keynote speakers, **Jim Johnson from Western University** and **John O'Neill from McMaster University** presented lectures on shoulder reconstruction and clinical imaging, respectively. Nearly 50 abstracts were presented in both podium and poster formats. A workshop focusing on occupational shoulder exposure limits was hosted by the Centre for Research Expertise for the Prevention of Musculoskeletal Disorders. Sponsors included The University of Waterloo Faculty of Applied Health Sciences and Department of Kinesiology, Delsys, Innovative Sports Training, and Northern Digital, Inc. The program also featured laboratory tours of the biomechanics group in the Department of Kinesiology. Additionally, a strong social schedule complimented the technical content of the meeting, allowing the strengthening and creation of existing research collaborations. A special issue of the Journal of Electromyography and Kinesiology is in production to highlight a cross-section of the excellent work presented at the conference.

The **11<sup>th</sup> Meeting of the International Shoulder Group** has been confirmed for July 14-16, 2016 and will be held in **Winterthur, Switzerland** at the Zurich University of Applied Health Sciences, and organized by Dr Daniel Baumgartner. We hope to see many familiar and new faces at the meeting!

## New Board for International Shoulder Group

Following an election process carried out by out-going board member John Borstad, I am delighted to announce that five nominations to the board were received and all were elected unopposed. The new ISG Board thus comprises:

- [Dimitra Blana](#), Keele University, UK
- [Andrea Cutti](#), INAIL Prosthesis Centre, Bologna, Italy
- [Clark Dickerson](#), University of Waterloo, Canada
- [Stefan van Drongelen](#), University Hospital, Heidelberg, Germany
- [Gretchen Oliver](#), Auburn University, Alabama, USA.

I would like to take this opportunity to welcome the new board members and wish them all success in running the ISG. I am sure we will see exciting new developments in the coming months, and I look forward to the ISG Special Session at ISB Glasgow next summer!

I would also like to take this opportunity to thank the out-going members, John Borstad, Cathy Holt and Andy Karduna for their efforts over the last few years. Andrea Cutti is a continuing member but no less deserving of thanks :-).

Best wishes,

**Ed Chadwick**, *Former ISG Chair.*

## Biomechanics in Developing Countries

By Ed Chadwick | December 2014

### Webinar: Benefits and Challenges of Biomechanics Research in Developing Countries

Last month I had the pleasure of presenting a webinar on the “Benefits and Challenges of Biomechanics Research in Developing Countries” as part of a series organized by Professor Felipe Carpes to promote online biomechanics education. In the presentation, I illustrated the link between biomechanics research and global health priorities, such as those related to the Millennium Development Goals. Drawing on examples within the ISB community, I highlighted how EDC biomechanics can shed light on connections between social determinants and health outcome, in addition to improving treatment and lifestyle choices of populations worldwide. Not surprisingly, there are also many challenges associated with conducting biomechanics research in developing countries. At the end of the presentation I spoke briefly about how we can address these challenges in order to continue to advance biomechanics opportunities in EDCs.

If you were not able to attend this webinar, you can still access it online at the following link:  
<http://webconf.unipampa.edu.br/p15734254/>.

To learn more about Felipe’s biomechanics research initiatives at the University of Pampa, Brazil, and the history of collaboration with the ISB, please visit the UniPampa project page on the ISB website.

Exciting developments are also taking place on the opposite side of the globe at the MGMIHS clinical biomechanics lab in Mumbai, India. The ISB has been working closely with Dr. Mullerpatan, MGMIHS Project Director, as well as AMTI and Vicon to support expansion of the lab; installation of a motion capture system and force platforms is scheduled for early 2015. Stay tuned for an update on this project

in the following ISB NOW newsletter.

*Andrea Hemmerich*

Economically Developing Countries (EDC) Project Officer

## **ISB Congress Update**

By Ed Chadwick | December 2014

### **XXV Congress of the International Society of Biomechanics - REGISTRATION NOW OPEN**

Join us at the SECC in Glasgow, UK, between the **12<sup>th</sup> - 16<sup>th</sup> April 2015**, to celebrate the 25<sup>th</sup> birthday of the International Society of Biomechanics congress.

We are pleased to announce that registration for the conference is now open.

To register at the competitive early bird rates, and for full details of the rates and categories available, visit the conference website at [www.isbglasgow.com](http://www.isbglasgow.com).

Abstract submission is now closed and we would like to thank all of you who submitted an abstract, we were overwhelmed with the response from submitters.

We have a number of exciting social events including, a welcome reception at the Science Centre, 25<sup>th</sup> birthday celebrations, a conference dinner at the Arches and a golf day to finish off a great week. We will be offering a selection of tours for accompanying persons and the students have some fun filled activities planned for them! All of these events are an opportunity to enjoy the company of friends and see a little more of Glasgow! You can book these events when registering your attendance online.

Keep an eye on the ISB 2015 website for all the latest news on the programme, our valued industry partners and up to date registration information. Don't forget to get involved on social media too - follow us on Twitter @ISB\_Glasgow #ISB2015.

*The **International Society of Biomechanics** looks forward to welcoming you to Glasgow in 2015!*

## **ISB New Members, December 2014**

By Ed Chadwick | December 2014

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## **News from Affiliated Societies**

By Ed Chadwick | December 2014



One of the most interesting programs of the ISB is the Affiliated Societies, this program pursues the aim that ISB can serve as a parent society that can contribute to the development of Biomechanics Societies of national and even regional level. The ISB has an annual budget of 10 000 USD assigned to support the implementation of national and regional Scientific Meetings in Biomechanics, particularly by helping to fund the presence of international researcher members of the ISB to be guest speakers at these conferences and also supporting the prizes to be awarded to young researchers (YIA). In 2014 ISB supported the Congresses of Biomechanics Societies of the following countries or regions; Australasia, Poland, and Bulgaria.

You can see below pictures of oral presentations in YIA competition at the Congress of the Bulgarian Society of Biomechanics as well as pictures of the delivery certificate YIA of the 9th Australasian Biomechanics Conference (ABC9) which was presented to the winner by Toni Arndt. Another picture shows Toni Arndt that was the invited speaker supported by ISB at the ABC9, with his parents, who attended his keynote address (a very special occasion for them).



*Award Winner at Bulgarian Society of Biomechanics meeting, Dr Ivan Ivanov.*



*Biomechanics Conference of the Bulgarian Society*



*Toni Arndt presenting the Young Investigator Award at ABC9 to Kane Middleton of the University of Western Australia / University of Wollongong*



*Toni Arndt with his parents following a keynote address at ABC9*

ISB would like to reinforce our link with all the Affiliated Societies and to provide support for the development of Biomechanics on your country. We have particular care for the possibility to help to support the Young Investigator Awards on your national events that we think could contribute for the development of outstanding research in our field.

To submit a proposal for support for both the invited speaker and YIA were the following information should be include:

- 1- For the travel support for a Keynote Speaker

- Name of the proposed keynote speaker that needs to be a member of ISB, including a short CV and acceptance (email or letter)
- Abstract of the conference
- Budget for traveling and accommodation
- Affiliated Society will need to include Information on the web site of the conference and also on the conference program acknowledging the support of ISB for this invited Speaker conference.

## 2- For the Young Investigator award

- Brief note explaining the procedure for the award selecting process
- The Prize should be named ISB Young Investigator Award.
- The support of ISB should be acknowledge in the program and webpage of the conference.

After the congress ISB should receive a small report to be included on our ISB newsletter and additionally some photos of the conference from the invited speaker supported by ISB and also from the ISB YIA award ceremony to be also include in ISB Newsletter and ISB website.

The amount for each of the grant are:

Invited Speaker: 2000 USD

YIA: 500 USD.

ISB would like that more and more Affiliated Societies could benefit from this support and obviously that this support could be a way to strengthen the links of your Societies to ISB.

# Call for ISB Executive Nominations

By Ed Chadwick | December 2014

## ***Have you ever considered becoming a more active participant within the biomechanics community and serving on the ISB Executive Council?***

An Executive Council, which is composed of Officers and Council members who are elected for 2-year terms, governs the ISB. The Council, which meets face-to-face annually, provides leadership to ensure continued development of the Society. We strive to ensure that the Council includes members who represent a diverse range of countries and regions, as well as a variety of scientific areas within biomechanics. Council members can be re-elected twice, for a total maximal period of six years. The 2015-2017 council will have Andy Cresswell as President.

Profiles of individuals standing for office will be featured in the March 2015 ISB NOW, and election of the Executive Members will follow shortly thereafter. If you would like to be considered for possible inclusion on the ballot for the 2015-2017 ISB Executive Council, or if you would like to nominate somebody, please submit:

- A recent photo (head and shoulders only), and

- A short bio-sketch including a statement as to why you (or the person you nominate) would like to serve on the ISB Executive Council (200 words maximum)

Please send the photo and bio-sketch or nominations directly to me via email:  
[a.vandenbogert@csuohio.edu](mailto:a.vandenbogert@csuohio.edu).

Deadline for application/nomination is **February 1st, 2015**.

Serving on the ISB Executive Council is an extremely rewarding experience and has been one of the highlights of my career. It provides you with a thorough understanding of what the ISB and biomechanics worldwide is all about, and an opportunity to help shape the future of our field and our scientific community.

Please feel free to contact me should you have any questions regarding the ISB Executive Council.

*Ton van den Bogert*

Past President